

ABSTRACT

A rapid response structure of a gas sensor which includes a protective cover assembly defining therein a gas chamber to which a gas to be measured is admitted. The gas assembly consists of an outer and an inner cover. The inner cover is disposed within the outer cover with a clearance which defines a gas path extending from gas inlet holes formed in the outer cover to the gas chamber through gas inlet holes formed in the inner cover. The outer and inner covers are so designed geometrically as to minimize the interference of a return gas flow produced within the clearance with the flow of the gas into the gas chamber, thereby facilitating the entrance of the gas into the gas chamber.